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| **2023년 09주차 실습 체크 리스트** |
| |  |  | | --- | --- | | **실습 1** | **완성** | | **실습 2** | **완성** | |
| **실습 1 : [ DynamicFragment ]** |
| **activity\_main.xml** |
| <?xml version="1.0" encoding="utf-8"?> <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:tools="http://schemas.android.com/tools"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  tools:context=".MainActivity">   <Button  android:id="@+id/button"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:text="이미지"  android:layout\_marginStart="15dp"  android:layout\_marginTop="1dp"  android:layout\_marginEnd="20dp"  app:layout\_constraintEnd\_toStartOf="@+id/button2"  app:layout\_constraintHorizontal\_chainStyle="packed"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toTopOf="@+id/button2"  />   <Button  android:id="@+id/button2"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:text="리스트"  android:layout\_marginTop="46dp"  android:layout\_marginEnd="52dp"  app:layout\_constraintBottom\_toTopOf="@+id/frameLayout"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toEndOf="@+id/button"  app:layout\_constraintTop\_toTopOf="parent"  />   <FrameLayout  android:id="@+id/frameLayout"  android:layout\_width="0dp"  android:layout\_height="0dp"  android:layout\_marginStart="2dp"  android:layout\_marginEnd="2dp"  android:layout\_marginBottom="15dp"  app:layout\_constraintBottom\_toBottomOf="parent"  app:layout\_constraintEnd\_toEndOf="parent"  app:layout\_constraintStart\_toStartOf="parent"  app:layout\_constraintTop\_toBottomOf="@+id/button2">  </FrameLayout>  </androidx.constraintlayout.widget.ConstraintLayout> |
| **fragment\_image.xml** |
| <?xml version="1.0" encoding="utf-8"?> <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:tools="http://schemas.android.com/tools"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  xmlns:app="http://schemas.android.com/apk/res-auto"  android:orientation="vertical"  tools:context=".ImageFragment">   <ImageView  android:id="@+id/imageView"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  android:scaleType="fitXY"  app:srcCompat="@drawable/img"/>  </LinearLayout> |
| **fragment\_item.xml** |
| <?xml version="1.0" encoding="utf-8"?> <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:orientation="horizontal">   <TextView  android:id="@+id/content"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:layout\_margin="@dimen/text\_margin"  android:textAppearance="?attr/textAppearanceListItem" /> </LinearLayout> |
| **fragment\_item\_list.xml** |
| <?xml version="1.0" encoding="utf-8"?> <androidx.recyclerview.widget.RecyclerView xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:tools="http://schemas.android.com/tools"  android:id="@+id/list"  android:name="com.frost.lab01dynamicfragment.ItemFragment"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  android:layout\_marginLeft="16dp"  android:layout\_marginRight="16dp"  app:layoutManager="LinearLayoutManager"  tools:context=".ItemFragment"  tools:listitem="@layout/fragment\_item" /> |
| **MainActivity.kt** |
| package com.frost.lab01dynamicfragment  import androidx.appcompat.app.AppCompatActivity import android.os.Bundle import com.frost.lab01dynamicfragment.databinding.ActivityMainBinding  class MainActivity : AppCompatActivity() {  lateinit var binding: ActivityMainBinding  val imageFrag = ImageFragment()  val itemFrag = ItemFragment()  override fun onCreate(savedInstanceState: Bundle?) {  super.onCreate(savedInstanceState)  binding=ActivityMainBinding.inflate(*layoutInflater*)  setContentView(binding.*root*)  initLayout()  }   private fun initLayout() {  val fragment = *supportFragmentManager*.beginTransaction()  fragment.replace(R.id.*frameLayout*, imageFrag)  fragment.commit()  //트랜잭션 설정  binding.*apply* **{** button.setOnClickListener **{** if(!imageFrag.*isVisible*){  val fragment = *supportFragmentManager*.beginTransaction()  fragment.addToBackStack(null)  //백스택에 저장  fragment.replace(R.id.*frameLayout*, imageFrag)  fragment.commit()  }  **}** button2.setOnClickListener **{** if(!imageFrag.*isVisible*){  val fragment = *supportFragmentManager*.beginTransaction()  fragment.addToBackStack(null)  //백스택에 저장  fragment.replace(R.id.*frameLayout*, itemFrag)  fragment.commit()  }  **}  }** } } |
| **MyItemRecyclerViewAdapter.kt** |
| package com.frost.lab01dynamicfragment  import androidx.recyclerview.widget.RecyclerView import android.view.LayoutInflater import android.view.View import android.view.ViewGroup import android.widget.TextView import com.frost.lab01dynamicfragment.databinding.FragmentItemBinding  class MyItemRecyclerViewAdapter(  private val values: List<String> ) : RecyclerView.Adapter<MyItemRecyclerViewAdapter.ViewHolder>() {   override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): ViewHolder {  return ViewHolder(  FragmentItemBinding.inflate(  LayoutInflater.from(parent.*context*),  parent,  false  )  )  }   override fun onBindViewHolder(holder: ViewHolder, position: Int) {  val item = values[position]  holder.contentView.*text* = item  }  override fun getItemCount(): Int = values.size  inner class ViewHolder(binding: FragmentItemBinding) : RecyclerView.ViewHolder(binding.*root*) {  val contentView: TextView = binding.content  override fun toString(): String {  return super.toString() + " '" + contentView.*text* + "'"  }  } } |
| **ItemFragment.kt** |
| package com.frost.lab01dynamicfragment  import android.os.Bundle import androidx.fragment.app.Fragment import androidx.recyclerview.widget.GridLayoutManager import androidx.recyclerview.widget.LinearLayoutManager import androidx.recyclerview.widget.RecyclerView import android.view.LayoutInflater import android.view.View import android.view.ViewGroup  class ItemFragment : Fragment() {   private var columnCount = 1  val arrayList = *arrayListOf*<String>("아메리카노", "카페라떼", "카푸치노")   override fun onCreateView(  inflater: LayoutInflater, container: ViewGroup?,  savedInstanceState: Bundle?  ): View? {  val view = inflater.inflate(R.layout.*fragment\_item\_list*, container, false)   // Set the adapter  if (view is RecyclerView) {  *with*(view) **{** *layoutManager* = when {  columnCount <= 1 -> LinearLayoutManager(*context*)  else -> GridLayoutManager(*context*, columnCount)  }  *adapter* = MyItemRecyclerViewAdapter(arrayList)  **}** }  return view  } } |
| **ImageFragment.kt** |
| package com.frost.lab01dynamicfragment  import android.os.Bundle import androidx.fragment.app.Fragment import android.view.LayoutInflater import android.view.View import android.view.ViewGroup  class ImageFragment : Fragment() {   override fun onCreateView(  inflater: LayoutInflater, container: ViewGroup?,  savedInstanceState: Bundle?  ): View? {  // Inflate the layout for this fragment  return inflater.inflate(R.layout.*fragment\_image*, container, false)  }  } |
| **실행결과** |
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| **실습2 : [ TabLayout&ViewPager2&Fragment ]** |
| **activity\_main.xml** |
| <?xml version="1.0" encoding="utf-8"?> <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:tools="http://schemas.android.com/tools"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  android:orientation="vertical"  tools:context=".MainActivity">   <androidx.viewpager2.widget.ViewPager2  android:id="@+id/viewpager"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  android:layout\_weight="1" />   <com.google.android.material.tabs.TabLayout  android:id="@+id/tablayout"  android:layout\_width="match\_parent"  android:layout\_height="wrap\_content"  />  </LinearLayout> |
| **fragment\_image.xml** |
| <?xml version="1.0" encoding="utf-8"?> <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:tools="http://schemas.android.com/tools"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  xmlns:app="http://schemas.android.com/apk/res-auto"  android:orientation="vertical"  tools:context=".ImageFragment">   <ImageView  android:id="@+id/imageView"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  android:scaleType="fitXY"  app:srcCompat="@drawable/img"/>  </LinearLayout> |
| **fragment\_item.xml** |
| <?xml version="1.0" encoding="utf-8"?> <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:orientation="horizontal">   <TextView  android:id="@+id/content"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:textAppearance="?attr/textAppearanceListItem" /> </LinearLayout> |
| **fragment\_item\_list.xml** |
| <?xml version="1.0" encoding="utf-8"?> <androidx.recyclerview.widget.RecyclerView xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:tools="http://schemas.android.com/tools"  android:id="@+id/list"  android:name="com.frost.lab02tablayout\_viewpager2.ItemFragment"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  android:layout\_marginLeft="16dp"  android:layout\_marginRight="16dp"  app:layoutManager="LinearLayoutManager"  tools:context=".ItemFragment"  tools:listitem="@layout/fragment\_item" /> |
| **fragment\_team.xml** |
| <?xml version="1.0" encoding="utf-8"?> <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:orientation="horizontal">   <TextView  android:id="@+id/item\_number"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:layout\_margin="@dimen/text\_margin"  android:textAppearance="?attr/textAppearanceListItem" />   <TextView  android:id="@+id/content"  android:layout\_width="wrap\_content"  android:layout\_height="wrap\_content"  android:layout\_margin="@dimen/text\_margin"  android:textAppearance="?attr/textAppearanceListItem" /> </LinearLayout> |
| **fragment\_team\_list.xml** |
| <?xml version="1.0" encoding="utf-8"?> <androidx.recyclerview.widget.RecyclerView xmlns:android="http://schemas.android.com/apk/res/android"  xmlns:app="http://schemas.android.com/apk/res-auto"  xmlns:tools="http://schemas.android.com/tools"  android:id="@+id/list"  android:name="com.frost.lab02tablayout\_viewpager2.TeamFragment"  android:layout\_width="match\_parent"  android:layout\_height="match\_parent"  android:layout\_marginLeft="16dp"  android:layout\_marginRight="16dp"  app:layoutManager="LinearLayoutManager"  tools:context=".TeamFragment"  tools:listitem="@layout/fragment\_team" /> |
| **MainActivity.kt** |
| package com.frost.lab02tablayout\_viewpager2  import androidx.appcompat.app.AppCompatActivity import android.os.Bundle import com.frost.lab02tablayout\_viewpager2.databinding.ActivityMainBinding import com.google.android.material.tabs.TabLayoutMediator  class MainActivity : AppCompatActivity() {  val textArray = *arrayListOf*<String>("이미지", "리스트", "팀 소개")  val imgArray = *arrayListOf*<Int>(R.drawable.*baseline\_hail\_24*, R.drawable.*baseline\_hiking\_24* , R.drawable.*baseline\_cookie\_24*)  lateinit var binding: ActivityMainBinding  override fun onCreate(savedInstanceState: Bundle?) {  super.onCreate(savedInstanceState)  binding=ActivityMainBinding.inflate(*layoutInflater*)  setContentView(binding.*root*)  initLayout()  }   private fun initLayout() {  binding.viewpager.*adapter* = MyViewPagerAdapter(this)  TabLayoutMediator(binding.tablayout, binding.viewpager)**{** tab, position **->** tab.*text* = textArray[position]  tab.setIcon(imgArray[position])  **}**//세 번째 인자는 추상클래스인데 그 클래스에는 구현해야하는 메서드가 1개라서 그냥 {}로 body 정의해서 인자 전달  .attach()  } } |
| **MyItemRecyclerViewAdapter.kt** |
| package com.frost.lab02tablayout\_viewpager2  import androidx.recyclerview.widget.RecyclerView import android.view.LayoutInflater import android.view.View import android.view.ViewGroup import android.widget.TextView import com.frost.lab02tablayout\_viewpager2.databinding.FragmentItemBinding  class MyItemRecyclerViewAdapter(  private val values: List<String> ) : RecyclerView.Adapter<MyItemRecyclerViewAdapter.ViewHolder>() {   override fun onCreateViewHolder(parent: ViewGroup, viewType: Int): ViewHolder {  return ViewHolder(  FragmentItemBinding.inflate(  LayoutInflater.from(parent.context),  parent,  false  )  )  }   override fun onBindViewHolder(holder: ViewHolder, position: Int) {  val item = values[position]  holder.contentView.text = item  }   override fun getItemCount(): Int = values.size   inner class ViewHolder(binding: FragmentItemBinding) : RecyclerView.ViewHolder(binding.root) {  val contentView: TextView = binding.content   override fun toString(): String {  return super.toString() + " '" + contentView.text + "'"  }  }  } |
| **MyViewPagerAdapter.kt** |
| package com.frost.lab02tablayout\_viewpager2  import androidx.fragment.app.Fragment import androidx.viewpager2.adapter.FragmentStateAdapter  class MyViewPagerAdapter(fragmentActivity: MainActivity) : FragmentStateAdapter(fragmentActivity) {  //부모 클래스에 Activity 정보를 인자로 전달해줘야함    //추상클래스 메서드 오버라이딩  override fun getItemCount(): Int {  return 3  }   override fun createFragment(position: Int): Fragment {  return when(position){  0 -> ImageFragment()  1 -> ItemFragment()  2 -> TeamFragment()  else -> ImageFragment()  }  }  } |
| **ImageFragment.kt** |
| package com.frost.lab02tablayout\_viewpager2 import android.os.Bundle import androidx.fragment.app.Fragment import android.view.LayoutInflater import android.view.View import android.view.ViewGroup  class ImageFragment : Fragment() {   override fun onCreateView(  inflater: LayoutInflater, container: ViewGroup?,  savedInstanceState: Bundle?  ): View? {  // Inflate the layout for this fragment  return inflater.inflate(R.layout.*fragment\_image*, container, false)  }  } |
| **ItemFragment.kt** |
| package com.frost.lab02tablayout\_viewpager2  import android.os.Bundle import androidx.fragment.app.Fragment import androidx.recyclerview.widget.GridLayoutManager import androidx.recyclerview.widget.LinearLayoutManager import androidx.recyclerview.widget.RecyclerView import android.view.LayoutInflater import android.view.View import android.view.ViewGroup  class ItemFragment : Fragment() {   private var columnCount = 1  val arrayList = arrayListOf<String>("아메리카노", "카페라떼", "카푸치노")   override fun onCreateView(  inflater: LayoutInflater, container: ViewGroup?,  savedInstanceState: Bundle?  ): View? {  val view = inflater.inflate(R.layout.fragment\_item\_list, container, false)   // Set the adapter  if (view is RecyclerView) {  with(view) {  layoutManager = when {  columnCount <= 1 -> LinearLayoutManager(context)  else -> GridLayoutManager(context, columnCount)  }  adapter = MyItemRecyclerViewAdapter(arrayList)  }  }  return view  } } |
| **TeamFragment.kt** |
| package com.frost.lab02tablayout\_viewpager2  import android.os.Bundle import androidx.fragment.app.Fragment import androidx.recyclerview.widget.GridLayoutManager import androidx.recyclerview.widget.LinearLayoutManager import androidx.recyclerview.widget.RecyclerView import android.view.LayoutInflater import android.view.View import android.view.ViewGroup class TeamFragment : Fragment() {   private var columnCount = 1  val arrayList = *arrayListOf*<String>("20학번 최현님", "16학번 송수한 선배님", "19학번 천성필", "19학번 이주형")   override fun onCreateView(  inflater: LayoutInflater, container: ViewGroup?,  savedInstanceState: Bundle?  ): View? {  val view = inflater.inflate(R.layout.*fragment\_item\_list*, container, false)   // Set the adapter  if (view is RecyclerView) {  *with*(view) **{** *layoutManager* = when {  columnCount <= 1 -> LinearLayoutManager(*context*)  else -> GridLayoutManager(*context*, columnCount)  }  *adapter* = MyItemRecyclerViewAdapter(arrayList)  **}** }  return view  } } |
| **실행결과** |
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